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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,165	07/02/2001	Peter Daute	H3722PCT/US	3060

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COGNIS CORPORATION
PATENT DEPARTMENT
300 BROOKSIDE AVENUE
AMBLER, PA 19002

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,165

Applicant(s)

DAUTE ET AL.

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,8,9,11,15-20 and 24-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 6,8,9,11,15-20 and 24-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/9/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/9/06 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 6, 8-9, 11, 15-20, and 24-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Rieber et al. (U.S. 4,235,794).

Rieber et al. disclose composition comprising granules of zinc or calcium salts wherein the granules have diameter of 1-1.5 mm, are spherical, and thus, have uniform size and shape. It is noted that Rieber et al. disclose pure metal soap granulate. There is further disclosed method wherein the granular composition is added to thermoplastic composition comprising polymer such as polyvinyl chloride (col.1, lines 6-12, col.2, lines 30-31 and 52-54, col.3, lines 13-16 and 37-38, col.4, lines 39-44, col.7, lines 10-12 and 22-24, and col.11, lines 46-49).

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It is noted that there is no disclosure in Rieber et al. of how the granules or granular composition is made. That is, while Rieber et al. discloses spherical granules, there is no disclosure that the granules are extruded and the ends thereof rounded as required in present claims 6, 8-9, 11, 25-29, and 31 and no disclosure that these granules are made by providing extruded cylindrical granules which were produced in a twin screw extruder at certain temperature and pressure conditions followed by spheronizing the extruded cylindrical granules using spheronizer with certain rotational speed and residence time as required in present claims 15-20, 24, and 30. However, it is noted that “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself”. See MPEP 2113.

Thus, although Rieber et al. do not disclose the specific presently claimed process conditions, it is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983).

Therefore, absent evidence of criticality regarding the presently claimed process to make the granules or granular composition and given that Rieber et al. meet the requirements of the

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claimed granules or granular composition, i.e. composition comprising spherical granules of zinc or calcium salts, Rieber et al. clearly meet the requirements of the present claims.

In light of the above, it is clear that Rieber et al. anticipate the present claims.

4. Claims 6, 8, 9, and 15-20, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 263489.

EP 263489 discloses composition comprising granules consisting of filler, i.e. calcium phosphate, alumina, or silica. The granules are of uniform size and shape, free of edges, substantially spherical, i.e. possess ratio of length to diameter of 0.9, and possess diameter of 0.1-2 mm (col.2, lines 1-3, 25-30, and 41-50, col.3, lines 27-29, and col.4, lines 9-10).

It is noted that there is no disclosure in EP 263489 of how the granules or granular composition is made. That is, while EP 263489 discloses substantially spherical granules, there is no disclosure that the granules are extruded and the ends thereof rounded as required in present claims 6 and 8-9 and no disclosure that these granules are made by providing extruded cylindrical granules which were produced in a twin screw extruder at certain temperature and pressure conditions followed by spheronizing the extruded cylindrical granules using spheronizer with certain rotational speed and residence time as required in present claims 15-20 and 24.

However, it is noted that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself". See MPEP 2113.

Thus, although EP 263489 does not disclose the specific presently claimed process conditions, it is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a

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product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983).

Therefore, absent evidence of criticality regarding the presently claimed process to make the granules or granular composition and given that EP 263489 meets the requirements of the claimed granules or granular composition, i.e. composition comprising substantially spherical filler granules, EP 263489 clearly meets the requirements of present claims 6, 8-9, 15-20 and 24.

In light of the above, it is clear that EP 263489 anticipate the present claims.

5. Claims 6, 8-9, 11, and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Raehse et al. (U.S. 5,382,377).

Raehse et al. disclose additive composition comprising granule obtained from plasticizer and/or lubricant wherein the granule is spherical, has uniform size and shape, has diameter of 0.5-5 mm, and has length to diameter ratio of 1:1 to 3:1. It is further disclosed that the plasticizer and/or lubricant are extruded using twin screw extruder at 50-200 bar and 40-60 °C into thin strands, size reduced by means of rotating blade, i.e. formed into cylindrical granules, and then the edges of the cylindrical granules rounded to form spherical shape using rounding machine having rotating bottom disk, i.e. spheronizer, wherein the desired degree of rounding is adjusted

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by varying the residence time of the granules in the rounding machine and/or rotational speed of the disk (col.2, lines 58-60, col.3, lines 1-20, col.5, lines 3-10 and 30-55, and col.6, lines 32-40).

In light of the above, it is clear that Raehse et al. anticipate the present claims.

6. Claims 20 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Raehse et al. (U.S. 5,382,377).

Raehse et al. disclose additive composition comprising granule obtained from plasticizer and/or lubricant wherein the granule is spherical, has uniform size and shape, has diameter of 0.5-5 mm, and has length to diameter ratio of 1:1 to 3:1. It is further disclosed that the plasticizer and/or lubricant are extruded using twin screw extruder at 50-200 bar and 40-60 °C into thin strands, size reduced by means of rotating blade, i.e. formed into cylindrical granules, and then the edges of the cylindrical granules rounded to form spherical shape using rounding machine having rotating bottom disk, i.e. spheronizer, wherein the desired degree of rounding is adjusted by varying the residence time of the granules in the rounding machine and/or rotational speed of the disk (col.2, lines 58-60, col.3, lines 1-20, col.5, lines 3-10 and 30-55, and col.6, lines 32-40).

It is noted that there is no disclosure in Raehse et al. of granular composition prepared by process that comprises using spheronizer with certain rotational speed and residence time as required in present claims 20 and 24. However, it is noted that “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself”. See MPEP 2113.

Thus, although Raehse et al. does not disclose the specific presently claimed process conditions, it is noted that “[E]ven though product-by-process claims are limited by and defined

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by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983).

Therefore, absent evidence of criticality regarding the presently claimed process to make the granular composition and given that Raehse et al. meets the requirements of the claimed granules or granular composition, i.e. composition comprising substantially spherical filler granules, Raehse et al. clearly meets the requirements of present claims 20 and 24.

In light of the above, it is clear that Raehse et al. anticipate the present claims.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
9. Claims 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raehse et al. (U.S. 5,382,377) in view of Reynolds (U.S. 3,741,703).

The disclosure with respect to Raehse et al. in paragraph 5 above is incorporated here by reference.

The difference between Raehse et al. and the present claimed invention is the requirement in the claims of the rotating speed and residence time associated with the spheronizer.

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Raehse et al. disclose spheronizing cylindrical granules using spheronizer with rotating bottom disk, however, there is no explicit disclosure of the rotational speed and residence time at which spheronizing is performed.

Reynolds, which is drawn to apparatus for making spherical granules, discloses using spheronizer. Reynolds discloses that the rotating speed of the spheronizer depends on the type of material; diameter of particles being spheronized, and characteristics of the spheronizer and that typically the spheronizer utilizes rotating bottom disk at rotating speed of 30-1500 rpm. Reynolds also discloses that the uniformity of the size of the spheres produced depends on the rotating speed. Reynolds further discloses that the residence time necessary to spheronize extrudate is 15 seconds to 5 minutes and depends on the content of the extrudate, nature of ingredients, temperature, and speed of rotating plate (col.1, lines 1-7, col.3, lines 1-6, col.4, lines 16-40, and col.5, lines 12-20).

In light of the above and given that Raehse et al. disclose granulate as presently claimed, it therefore would have been obvious to one of ordinary skill in the art to use spheronizer with rotating speed and residence time, including that presently claimed, in Raehse et al. in order to effectively produce spherical granules of uniform size, and thereby arrive at the claimed invention.

Response to Arguments

10. Applicants' arguments regarding Semen et al. (U.S. 2005/0006627) have been fully considered but they are moot in view of the discontinuation of the use of this reference against the present claims.

11. Applicants' arguments filed 8/9/06 have been fully considered but, with the exception of arguments relating to Semen, they are not persuasive.

Specifically, applicants argue that Rieber et al. is not a relevant reference against the present claims given that there is no disclosure in Rieber et al. that the granule is extruded or substantially spherical as required in all the present claims.

However, as seen in examples 10, 11 and 31, for instance, Rieber et al. disclose that the granules are in the form of hollow spheres.

Further, it is agreed that there is no disclosure that the granules are extruded and the ends thereof rounded as required in present claims 6, 8-9, 11, 25-29, and 31 and no disclosure that these granules are made by providing extruded cylindrical granules which were produced in a twin screw extruder at certain temperature and pressure conditions followed by spheronizing the extruded cylindrical granules using spheronizer with certain rotational speed and residence time as required in present claims 15-20, 24, and 30.

However, it is noted that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself". See MPEP 2113.

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Thus, although Rieber et al. do not disclose the specific presently claimed process conditions, it is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983).

Therefore, absent evidence of criticality regarding the presently claimed process to make the granules or granular composition and given that Rieber et al. meet the requirements of the claimed granules or granular composition, i.e. composition comprising spherical granules of zinc or calcium salts, Rieber et al. clearly meet the requirements of the present claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
10/23/06